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UNITED STATES DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/797,553 01/24/97 HELLBAUM R LAR-15493-1

023351 MMC1/0619
NATIONAL AERONAUTICS AND SPACE ADMINISTR
ATION LANGLEY RESEARCH CENTER
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EXAMINER

BUDD, M

ART UNIT

PAPER NUMBER

2834

DATE MAILED:

06/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/797553

Applicant(s)

Hellbaum et al

Examiner

M. Budd

Group Art Unit

2834

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

3

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 5-21-01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 17-24 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 17-24 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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Claims 17-24 are rejected under 35 U.S.C. 103 as unpatentable over Corwin in view of Haertling or vice versa. Corwin teaches the electro active device except the prestress layer is bonded to the convex side of the piezoelectric layer. Huertling teaches that the prestress layer can be attached to the concave side of the piezoelectric element if desired. If ^{is} ~~A~~ only necessary to assure that the piezoelement doe snot go into tension as this could cause breaking of the device. Thus, it would have been obvious to one of ordinary skill in the art at the prestress layer could be attached to either the concave or convex side of the piezoelectric element. Conversely, Huertling teaches the claimed electroactive device except the prestress layer is integral with the piezoelectric element. As noted in previous office actions, making parts integral or separable has long been held to be within the skill expected of the routineer. Further, Corwin explicitly teaches providing a prestress layer as a separate element. The examiner agrees that Huertling teaches there are advantages to using the monolithic construction. However, Hartling, by his every discussion, teaches that a separate layer device was known and consistered before the monolithic structure was preferred. Thus applicants claimed structure was known and contemplated by Hartling, or at least the combination of Hurtling as two separate layers (ala Corwin) was known or contemplated. The two layer structure, while not preferred by Hartling, is taught as suitable for small load applications, and would be less costly to produce. Thus, it would have been obvious to one of ordinary skill in the art that Haertling could be provided as two separate, bonded, layers.

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Distinct' is interpreted as being discernable different. Thus even the treated layer of Huertling would be considered untreated piezoelectric portion. Certainly the two layers of Corwin are clearly distinct.

Budd/ds

06/14/01

MARK O. BUDD
PRIMARY EXAMINER
ART UNIT 212